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GEOELECTRIC EFFECT OF OIL AND GAS DEPOSITS AND FORECASTING OF OIL AND GAS POSSIBILITYBY GEOPHYSICAL METHODS

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INTRODUCTION

All-round fuel and energy complex in our republic particular attention is paid to the development of hydrocarbon raw materials it directly depends on the increase in stock and its extraction. This preparation and development of new facilities by the introduction of effective geophysics-electrocution, methods and innovative technologies in its opinion, geology is the need to increase the level of performance shows.

Further development of the Republic of Uzbekistan in the action strategy "modernization of production, industry to the rapid development of high-tech Processing Networks aimed qualitatively to switch to a new ..." defining functions given. Based on these tasks, oil and gas fields can be new effective observations in forecasting by geophysical methods and development of methods for analyzing electrical data, useful signal levels and electrocution studies improving reliability, substantiating the criteria for oiliness of objects has scientific and practical acumen.

Scientific novelty of the research work is as follows: criteria for predicting oil and gas content by the method of magnetotelluric sounding of electrical prospecting, based on possible geoelectric effects caused by oil and gas deposits; a new method for determining interval conductivity has been developed, its increased resolution has been proven to detect geoelectric effects from oil and gas deposits; a method for stratification and deep linking of sections of the interval conductivity of the magnetotelluric field using data from well logging, vertical seismis profiling (VSP) and seismic time section has been developed; high efficiency and productivity of electrical exploration studies using the modern hardware-software comlex V-5 SYSTEM-2000 “Phoenix Geophysics Ltd” in the geological conditions of the Bukhara-Khiva oil and gas region was estabilished; for the first time, the prospectivity of electrical exploration in combination with thermogeochemical imaging was used shown to identify deep heat and mass transfer channels that play an important role in the process of oil and gas formation and the placement of oil and gas fields; the possibility of using electrical exploration to study the deep geological structure of pre-Jurassic formations is proved. Implementation of the research results. Based on the results of scientific studies of the geoelectric effect of oil and gas deposits and their prediction by geophysical methods: a complex of programs for processing field electrical prospecting materials by MTZ method obtained by the apparatus and equipment of the electrical prospecting complex V-5 SYSTEM-2000 was introduced into production in the processing center of “Uzbekgeofizika” JSC (reference of “Uzbekneftegaz” JSC No. 03-17-5-249 dated January 13, 2020). The results of the implementation made it possible to suppress industrial and natural disturbances, improve the quality and reliability of geological interpretation and save labor time and labor resources; a complex of programs for processing field electrical prospecting materials of the ZS-ZI and VP methods, obtained using the T-200 electrical prospecting complex and V-8A equipment, was introduced into production in the processing center of “Uzbekgeofizika” JSC (reference of “Uzbekneftegaz” JSC No. 03-17-5-249 dated 54 January 13, 2020). The results of the work made it possible to reduce the processing costs, improve the quality and reliability of processing results and their in 1-D and 2- D versions; a recommendation for the placement of a parametric well on the Oktulpor structure (Akbaital) was introduced into production at “Uzbekneftegaz” JSC in order to study the deep geological structure of the Paleozoic sediments of the eastern part of the Central Kyzylkum arch (reference of “Uzbekneftegaz” JSC No. 03-17-5- 249 dated January 13, 2020). The results of drilling parametric well No. 1P Oktulpor

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contributed to the study of the internal structure of the Paleozoic formations, the placement of the reservoir rocks and seal rocks; a map of the location of oil and gas prospective electrical exploration anomalies of Eastern Ustyurt was introduced into production in the branch "Usyurt Geophysical Expedition" of "Uzbekgeofizika" JSC (reference of "Uzbekneftegaz" JSC No. 03-17-5-249 dated January 13, 2020). The results of the implementation made it possible to increase the efficiency of prospecting operations, increase the growth of oil and gas reserves; a map of location of oil and gas prospective electrical exploration anomalies in the eastern part of the Ispanly-Chandyr and Dengizkul uplifts was introduced into production at the branch "Bukhara Geophysical Expedition" of "Uzbekgeofizika" JSC (reference of "Uzbekneftegaz" JSC No. 03-17-5-249 dated January 13, 2020). The results of the implementation made it possible to increase the efficiency of prospecting operations, increase the growth of oil and gas reserves;

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